

IN THE CLAIMS:

1. (CURRENTLY AMENDED) Spectroscopic ellipsometer ~~(1)~~ comprising:

a light source ~~(2)~~ emitting a light beam ~~(3)~~,

a polarization state generator section ~~(4)~~ containing a collimation optic ~~(9)~~ collimating,

said ~~(3)~~ and a generator of polarization ~~(10)~~ that polarizes the light beam,

a first mirror ~~(5)~~ focusing the beam ~~(3)~~ to a small spot on the surface of a sample ~~(1)~~ to an incidence angle θ .

a second mirror ~~(6)~~ connecting the beam modified by the sample ~~(1)~~ to an analyzing

section ~~(7)~~ comprising a polarization analyzer ~~(17)~~ that analyses the beam,

means ~~(8)~~ for detecting and analyzing spectroscopically said beam,

wherein

the first ~~(5)~~ and second ~~(6)~~ mirrors are parabolic mirrors,

the light beam through the polarization state generator section ~~(4)~~ up to the first mirror

~~(5)~~ is parallel enabling achromatism, and

said incidence angle θ is largely varied without shifting of the location of the small spot on the sample surface ~~(1)~~.

2. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1,

wherein the generator is of polarization ~~(10)~~ is a photoelastic modulator.

3. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1,

wherein the generator of polarization ~~(10)~~ is a rotating analyzer.

4. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1, wherein the generator is of polarization ~~(10)~~ is a rotating polarizer.

5. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1, wherein the generator of polarization ~~(10)~~ is a rotating compensator.

6. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1, wherein the polarization state generator section ~~(4)~~ and the analyzing section ~~(7)~~ are translated vertically with respect to the parabolic mirrors ~~(5,6)~~ to vary the incidence angle θ .

7. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1, where both mirrors ~~(5,6)~~ and the sample ~~(1)~~ are vertically translated with respect to the analyzing section ~~(7)~~ and polarization state generator section ~~(4)~~ to vary the incidence angle θ .

8. (PREVIOUSLY PRESENTED) Spectroscopic ellipsometer according to claim 6, wherein the incidence θ is varied between 0° and 90° .

9. (CURRENTLY AMENDED) Spectroscopic ellipsometer accordingly to claim 1 wherein the said two parabolic mirrors ~~(5,6)~~ have the same optical characteristics.

10. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1, where in the axis of both parabolic mirrors ~~(5,6)~~ and the sample surface are merged.

11. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 10 wherein both parabolic (~~5~~,~~6~~) are positioned symmetrically with respect to a plan passing by their optical axis and being normal to the sample surface.

12. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 1, wherein the shape of the parabolic mirrors (~~5~~,~~6~~) is manufactured by diamond turning.

13. (CURRENTLY AMENDED) Ellipsometric system according to claim 12, where in the distance from the polarization state generator section (~~4~~) to the sample (~~1~~) and the distance from the analyzing section (~~7~~) to the sample (~~1~~) are optimized to avoid diffraction influence created by diamond turning artifact.

14. (CURRENTLY AMENDED) Spectroscopic ellipsometer according to claim 13, wherein the parabolic mirrors (~~5~~,~~6~~) are treated with a post-polishing process.

15. (PREVIOUSLY PRESENTED) Spectroscopic ellipsometer according to claim 1, wherein the size of the spot is close to the diffraction limits.